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NATURALIST NOTEBOOK

DECEMBER 1968 VOLUME III NO. 12

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. . . . . Inside back cover.

Published by the

THAMES SCIENCE CENTER

622 Williams Street
New London, Connecticut 06320

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The Thames Science Center is a nonprofit organization seeking a quality environment through education.

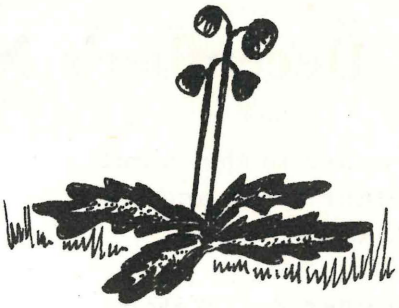
The active support of children and adults in the Science Center, its programs, activities and efforts is earnestly solicited.

– YOUR MEMBERSHIP HELPS SUPPORT AND MAINTAIN –

The Interpretive Museum of 622 Williams Street, New London, Connecticut 06320

The Peace Sanctuary Nature Preserve At 200 River Road, Mystic, Connecticut 06355

DECEMBER'S NATURE CALENDAR



DECEMBER is the month of evergreens. This is the first month of the long winter season when all plants that are not evergreen have turned brown and lost their leaves. Pines, spruces, hemlocks, and cedars are the obvious evergreens both in winter and summer. There are many smaller plants, however, that are also green all winter and these now become easy to see.

Green bushes of mountain laurel, our state flower, brighten the brown woods. Low to the ground, the clubmosses - relatives of the ferns - spread trails of green across the forest floor. These plants with common names like Creeping Jenny, Running Pine, and Princess Pine are especially popular this time of the year for making Christmas wreaths, a practice which, unfortunately, has greatly reduced their numbers.

Several of the ferns are evergreen and these, too, can easily be found in the winter. Christmas Fern, Polypody, and Evergreen Woodfern are among these evergreen ferns.

Some of our familiar spring and summer wildflowers have evergreen leaves. These include the Trailing Arbutus, Pipsissewa, Pyrola, Partridgeberry, and the well-named Wintergreen.

A trip into the woods will allow you to see these evergreen plants which help brighten the drab woods during the winter.

December's Nature Calendar

December is the month of feeder birds and cold, clear days.

December 2. . . Watch pine areas for possible winter visitors from the North - Crossbills and Pine Grosbeaks.

December 4. . . The hunting full moon.

December 7. . . Watch for the white Snow Geese to be in with the large flocks of Canada Geese.

December 10. . . Wooly Bears are hibernating in rock crevices and under logs in sunny spots.

December 14. . . Red Squirrels are very active in pine groves.

December 16. . . Chanukah

December 17-25. . . Shortest days of the year - 9 hours and 6 minutes long.

December 21. . . Shortest days of the year - 9 hours and 6 minutes long.

December 23. . . Snowy days create great activity at feeding stations.

December 24. . . Christmas Eve - watch for Reindeer on your rooftops.

December 25. . . Christmas Day.

December 27. . . New London has its Annual Christmas Bird Count.

December 28. . . Harbor Seals are often found sitting on small rocky islands off our shores.

December 30. . . Old Lyme-Saybrook Annual Christmas Bird Count.

THE CHILDREN'S CORNER *by TRUDY GARDNER*

The Box Elder tree outside the Science Center's building has become a favorite spot for a flock of about 40 Evening Grosbeaks.

Evening Grosbeaks were first discovered and identified in 1823 by a man named Schoolcraft. They were given the name Evening Grosbeaks because it was thought they sang only in the evening.

These birds are clothed in colors of black, white and gold with very large thick bills. If you look at the front cover of this Newsletter you will see a picture of two of the Evening Grosbeaks visiting at the Science Center's feeder.

The birds use their large bill to crush the sunflower seeds and we have watched the flock of them eat two or three pounds of sunflower seed in a morning.

These birds do not visit Southeastern Connecticut every year. Only when the seed crop in the North is poor do they come South looking for food.

Mr. Dewire, Naturalist at the Science Center has been banding the flock of Grosbeaks; and so far has banded 32 birds.

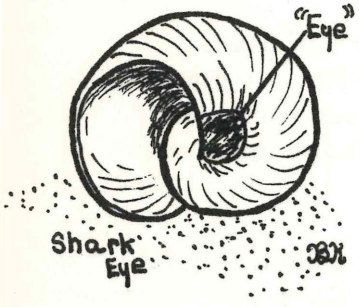
We have had reports of Grosbeaks from other areas. Is yours one of them?

ALONG THE SHORE

by BARBARA KASHANSKI

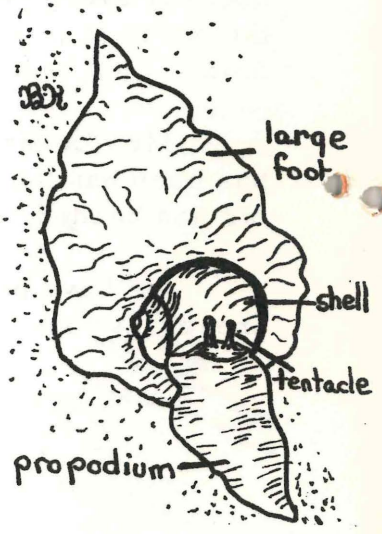
THE MOON SNAIL

The Moon Snail belongs to a large group of marine animals called Mollusks. The Latin word Mollusca means "soft" and all the animals in this group have soft bodies. Many mollusks, like the Moon Snail have hard shells that cover and protect their soft bodies. The Moon Snail and all other common sea snails are sometimes called univalve mollusks which means they have one valve or shell.

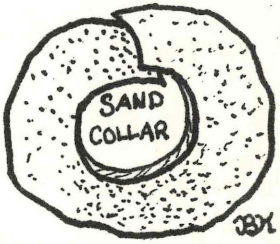


There are four kinds of Moon Snails found along the Atlantic coast. The most common ones found along our beaches are the Common Northern Moon which grows from 2 to 4.5 inches high and the smaller Shark Eye which is from 1 to $2\frac{1}{2}$ inches in height.

The Moon Snail is one of the most interesting of the univalves. One outstanding feature of this snail is its unusually large foot. In fact, the foot is so big when it's fully extended that it doesn't seem possible that the snail could pull it all into its shell. On the very back of the foot is a hard roundish disc called the operculum or "door" which fits snuggly in the entrance of the shell when the snail is inside and protects the animal completely. On the front part of the Moon Snail's large foot is a wedge-shaped structure that looks like a plow and, is in fact the snail's "plow." This wedge, called a propodium, pushes or plows heavy wet sand aside as



the Moon Snail searches for food. Not only does the Moon Snail use its large foot for getting about but uses it also to capture and hold its food. Moon Snails are carnivores or animal eaters and if a clam was on the menu the large foot would completely engulf it, holding it helpless while the Moon Snail drilled a hole through its shell with his tongue and then feasted on the soft body of the clam inside. The tongue of the snail is most interesting and unusual. It is shaped like a ribbon and lies coiled up in a spiral inside the mouth when the snail is not feeding. The tongue is covered on the sides and in the middle with rows of teeth which grasp and tear the snail's food - both plant and animal.



Many of you beachcomers have probably found a "sand collar." Although you might have known its name, did you know that it was the egg case of the Moon Snail? The sand collar is formed under the sand, and as the eggs are laid it is pushed up towards the surface. The sand collar is a sticky sheet of mucus when it is first formed over the top of the Moon Snail's shell. The eggs are laid in regular rows in the mucus. Sand sticks to the gluey egg case and when it hardens the case looks as though it has been made of sand. When the eggs hatch in midsummer the collar falls apart. If you are lucky enough to find a whole sand collar you would be lucky indeed to get it home in one piece for the "collars" are very thin and delicate and break easily when they dry. So if you are a beachcomber and like to collect treasures from the sea you will probably have to be content with just the beautiful Moon Snail shell.

ROCK HOUNDS *by JERRY THEILER*

CUTTING AND POLISHING ROCKS

Many rocks and minerals are cut and polished into jewelry stones. A machine called a lapidary is used to do this.

Six steps are involved in making gemstones:

1. The rough piece of stone is slabbed or sliced.
2. The slab is next trimmed to size.
3. A grinder is used to shape the stone and round the top.
4. Scratches left by the grinder are removed by a sander.
5. The stone is polished for a final finish.
6. The stone is set into a suitable mounting.

All of these steps will be demonstrated during the December 21st display at the Science Center. Rough and finished jewelry will also be available. The public is invited to attend the exhibit from 1:00 to 5:00 P.M.

PET CORNER

by DAVE RICHARDS

OSCARS

One of the largest tropical fish kept in aquariums today is the Oscar. They sometimes grow to over a foot in length, providing they have a large tank to live in.

The young Oscars are generally placed on sale in pet stores when they are about the size of a sword-tail. They grow very rapidly, as many unsuspecting hobbyists have found out when their Oscars quickly outgrow their tank.

The Oscars seem to have a bottomless stomach! They eat almost anything, including such things as live small fish, beef chunks, shrimp, and clams.

The Oscars (Astronotus Ocellatus) are found in South America. They are not fussy about their water conditions and become very tame after a short while and will even eat out of their owner's hand.

If you have a large tank and plenty of food for Oscars, they are a lot of fun to own. They are truly clowns of the aquarium world.

FROM THE EXECUTIVE DIRECTOR'S DESK . . . .

We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook. . . . Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible. . . . .

WETLANDS REPORT. . .

. . . The Save the Wetlands Committee has issued a 100-page report concerning the present legislation and need for effective regulation of tidal marshes in the state.

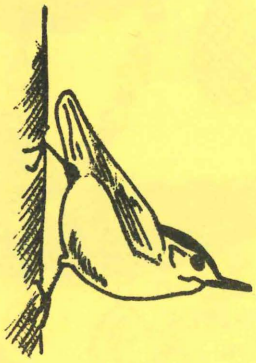
The report emphasizes that Connecticut is the only coastal New England state which does not have a law specifically directed toward wetland preservation.

It urges, as we have also urged, that effective action be taken in the coming legislative sessions starting in January.

CHRISTMAS COUNT. . .

. . . The New London Area Christmas Count sponsored by The Thames Science Center will be held on Friday, December 27th, with Saturday the 28th being used in the event of bad weather. The area boundries are Rocky Neck to Mason's Island, North to Bartletts Cove in Montville and South to Fishers Island. Anyone with a FEEDING STATION within this area who would like assist counting the birds at their feeder should phone in their list of birds at the end of the day on the 27th. Phone 443-6314 with your report. THE MORE FEEDER REPORTS WE GET THE MORE ACCURATE OUR COUNT WILL BE. For further information concerning the count call the Science Center at 443-4295.

JUNIOR NATURALIST NOTEBOOK

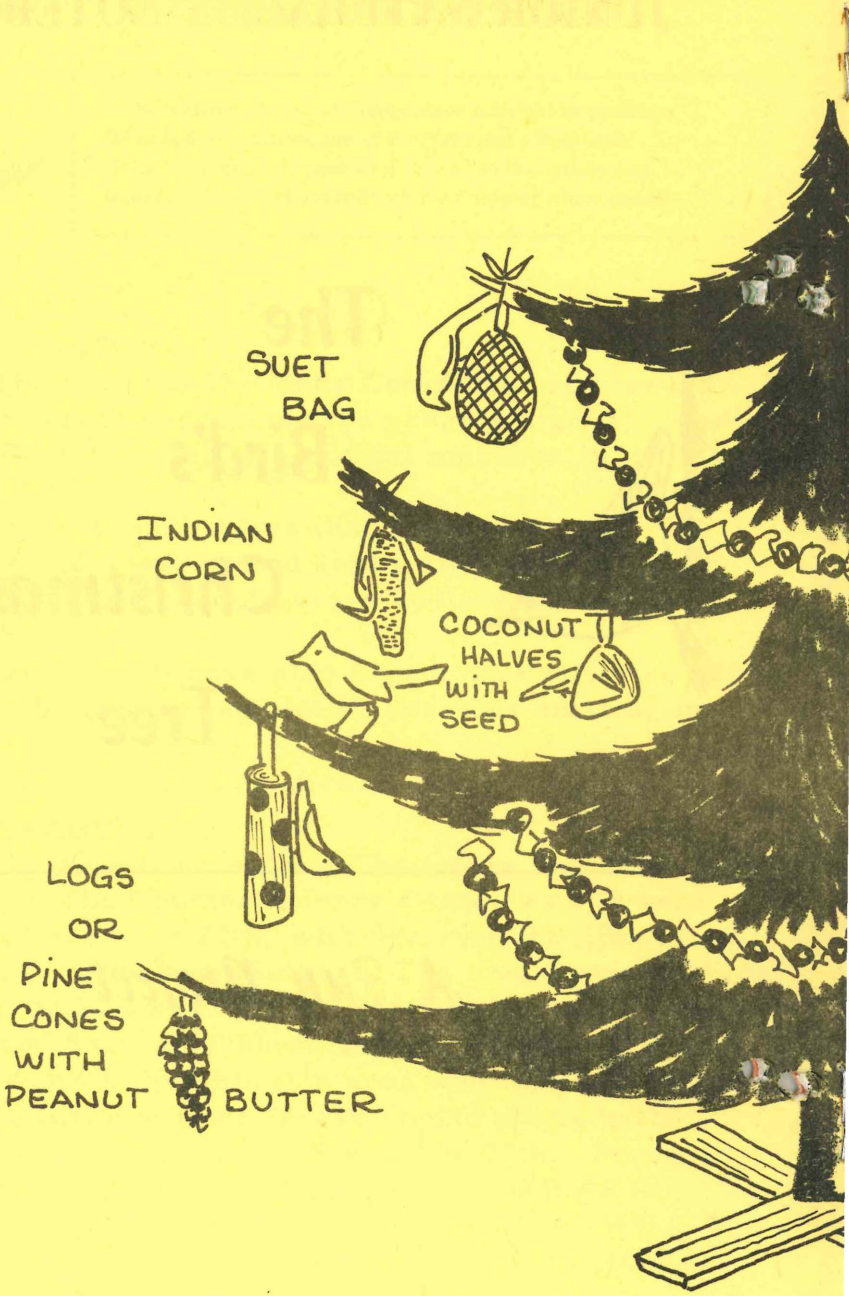


The Bird's Christmas Tree

A Fun Project

Copyright 1968
By
JOHN F. GARDNER

Decorate The Bird's



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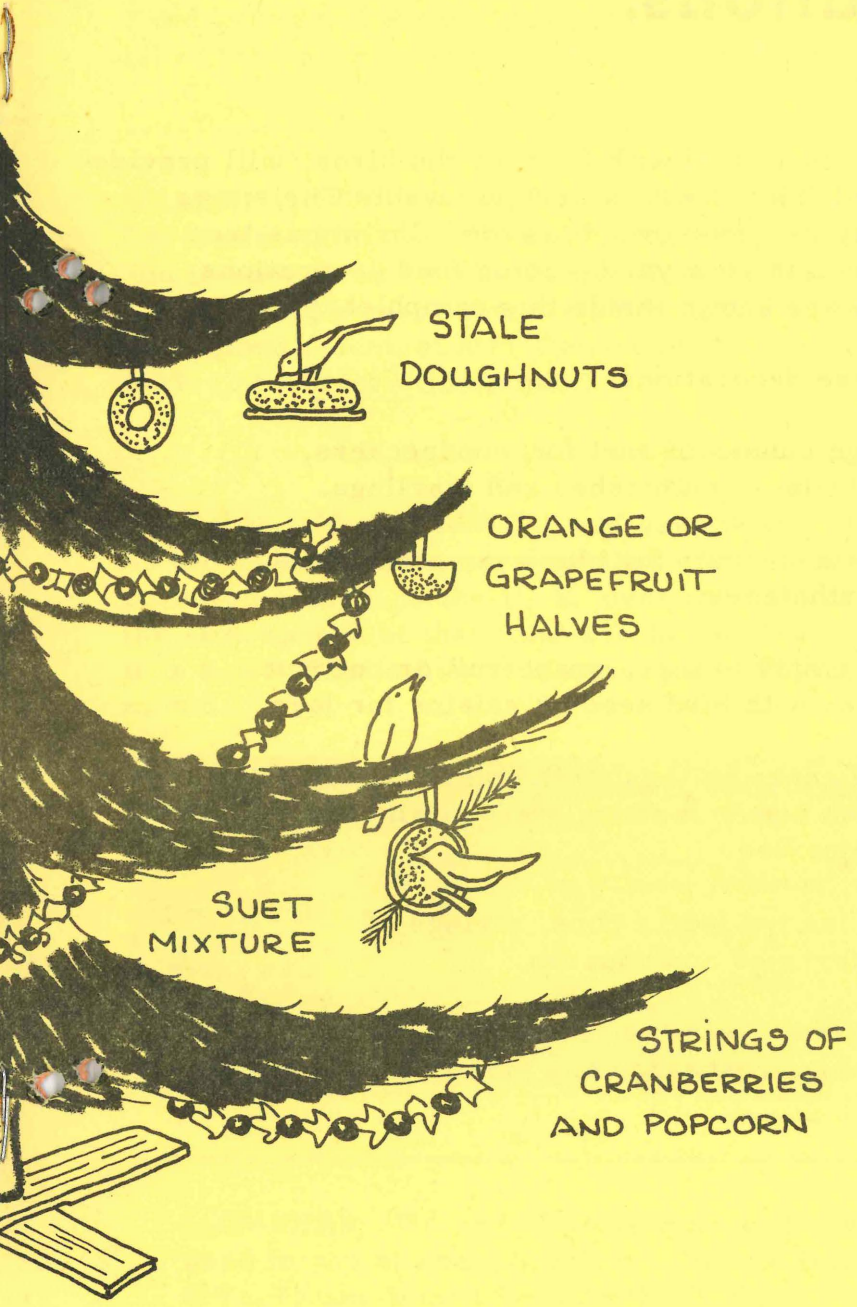
Christmas Tree With



EMOVE THIS INSERT

Decorations:

A tree, decorated with food for the birds, will provide your feathered friends with a very enjoyable Christmas gift. You may use your own discarded Christmas tree or an evergreen in your yard. Some food decorations you can make are shown inside this pamphlet.

Try these decorations:

Large chunks of suet for woodpeckers, chickadees, nuthatches and starlings.

Stale doughnuts for bluejays, chickadees or nuthatches.

Fill empty orange, grapefruit or coconut halves with bird seed or raisins for jays.

Pine cones or logs (with holes) spread with peanut butter for kinglets, brown creeper or titmouse.

For fun try Indian corn, strings of cranberries and popcorn.

Sunflower seeds for cardinals, goldfinch, evening grosbeaks, and pine siskin.

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New London, Conn. 06320

UNITED FUND... At this writing the United Fund Campaign is moving toward its final phase. The Science Center received $4,000.00 in support from the United Fund in 1968... Please support the United Fund so that all of the agencies in the community will benefit.

NEARBY CHRISTMAS COUNT... The Old Lyme-Saybrook Christmas Count will be held on Monday, December 30th and is sponsored by The Connecticut Audubon Council. Experienced birders interested in participating on this count should contact Mr. Dewire at the Science Center (443-4295) before Christmas.

142,000,000 TONS... and despite the estimated $3 billion to $4 billion a year that will be spent on air pollution control in the U. S. over the next decade, the atmosphere at that time will be no cleaner that it is now. That's how it is reported in Science News this month.

Source Distribution for Selected Air Pollutants in Millions of Tons per Year—1965

	Carbon Monoxide	Sulfur Oxides	Nitrogen Oxides	Hyrocarbons	Particulate Matter	Totals
Motor Vehicles	66	1	6	12	1	86
Industry	2	9	2	4	6	23
Power Plants	1	12	3	1	3	20
Space Heating	2	3	1	1	1	8
Refuse Disposal	1	1	1	1	1	5
Totals	72	26	13	19	12	142

U.S. Public Health Service—1966

MEMBERS: We are offering top quality wild bird seed to you at special prices. 50 lbs Sunflower @ $6.75 and Mixed Seed 25 lbs @ $2.00.

CONNECTICUT CREATURES *by MIKE WALKER*

THE TIMBER RATTLESNAKE

"Here's one!" the girl shouted. I struggled frantically up the rocky slope to where she was standing just in time to see a small rattlesnake disappear under a boulder nearby. Additional help soon arrived and four of us applied eager but cautious hands to the task of shifting the boulder enough to expose the snake.

The scene was a remote hillside in the Berkshires in Massachusetts, and our quarry was the Timber Rattlesnake. Four of us had set out on a cool, cloudy September afternoon under the able leadership of Alvah Sanborn, Director of the Pleasant Valley Wildlife Sanctuary and Audubon Wildlife Film Lecturer. The poor weather had been a concern to us and the small rattler that had taken refuge under the boulder was the first snake we had seen. I was finally able to pull him out from beneath the rock, pin down his head with my snake hook and drop him into a snake bag. As it turned out, he was our only capture that afternoon and he is one of our two Timber Rattlesnakes now on exhibit at our museum.

Feared, hated and misunderstood, the Timber or Banded Rattlesnake is the only species of rattlesnake throughout most of the northeast. It is a large, heavy bodied snake; the record standing at 6' 2" although the average length is far below this. The ground color of an adult varies from straw to sulphur yellow. The pattern consists of a series of dark brown or black bands. Toward the tail the colors become darker, and the last two or three inches are jet black. Occasionally adult Timber Rattlers are jet black.

The young are born alive during the late summer or early fall. There may be as many as 17 in a single

brood, but 4 or 5 is a more usual number. The young snakes are grey with dark cross bands and a prominent reddish brown stripe down the back. As the snake grows older the pattern changes gradually to the adult phase.

The baby rattlesnakes are born with a single horny button at the tip of their tail. Thereafter, each time the snake sheds its skin it adds a segmet to the rattle. The number of times an individual snake sheds during a year depends on its rate of growth, so a snake may add one to six segments to its rattle in a year.

Timber Rattlesnakes feed on small rodents, mostly mice, which they quickly subdue with their venom.

The Timber Rattlesnake has been persecuted by man for generations and throughout much of its range it is now completely wiped out. "Good riddance" would probably be the reaction of many people. However, this snake is an important part of the delicate systems that form the balance of nature and man tampers with these systems at great peril to his own well being.

Moreover, the Timber Rattlesnake is a magnificent animal, associated with rugged, unspoiled country and part of a wild heritage that we have already reduced to mere fragments.

– CENTER STORE –

The Science Center Store has a wide variety of items that are suitable for Christmas Gifts.

BOOKS.....GAMES.....NOTE PAPER .....BIRD FEEDERS.....SCIENCE KITS.....NATURE PINS.....TEA TOWELS.....PLAQUES.....ASSORTMENT OF ROCKS AND MINERALS..... INSECT MOUNTING SUPPLIES..... PLUS MANY OTHER STOCKING STUFFERS.....

Perhaps the finest gift you can present to someone would be a GIFT MEMBERSHIP in the Science Center. It is a kind of gift that would keep giving month after month.

A special gift announcement will be sent to the recipient in your name. There is no finer gift.

The Science Center Store is open daily from 9:30 A.M. to 4:30 P.M. and on Saturday and Sunday from 1:00 P.M. to 5:00 P.M. As a member you receive a 10% discount on all items over $1.00.

Christmas Bird Count-1967

by BOB DEWIRE

The alarm went off at 3:45 A. M. on Saturday morning, December 30th. It took a minute to realize why the alarm went off so early but then I remembered it was Christmas Count Day and it was time to go to Rocky Neck to listen for owls calling just before dawn. The count area my group had was from Rocky Neck State Park to the Niantic River and we would cover it very carefully all day recording everything we found.

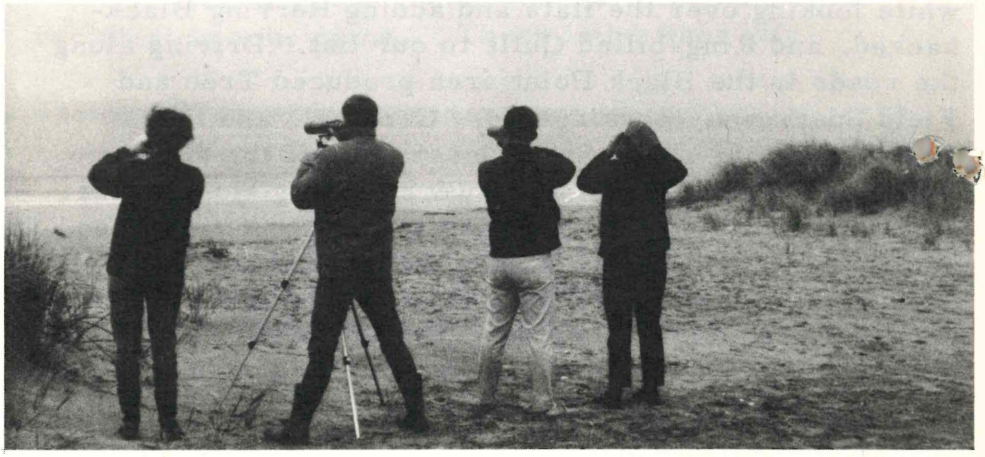
We arrived at the Park at 4:45 and walked down the road from the entrance in the dark. It was about 28° out but in the dark it seemed even colder and thoughts of the nice warm beds left behind went through our minds. An hour passed and no owls. The sky began to lighten as we gradually got used to the cold. The first birds of the day were several Great Blue Herons flying up the marsh and we were on our way. Hand clapping over the cattail marsh resulted in a Virginia Rail answering the noise. Several Song Sparrows, Mallards, and Black Ducks were also found in the marsh.

We went back to the car and drove to the mud flats at Black Point where we took a welcomed coffee break while looking over the flats and adding Herring Black-backed, and Ring-billed Gulls to our list. Driving along the roads in the Black Point area produced Tree and Field Sparrows, Mockingbird, Cardinal, and in a small cornfield a lone Snow Goose, one of the high-lights of the day. By 9:30 we were driving along Bride Brook Road watching a backyard feeder for Chickadees, and Downy Woodpeckers when a Yellow-bellied Sapsucker flew to a tree for one of the Count's best birds. Canada Geese were on Bride Lake and while counting them a beautiful Red-shouldered Hawk flew right in front

of us. Two Ruffed Grouse in a tree along the road proved to be the only ones seen on the entire Count. We then drove through Rocky Neck and added a Red-tailed Hawk, Myrtle Warbler, Golden and Ruby-crowned Kinglets to our list.

Just before lunch we stopped at Groton's Pond and there found a brilliant male Wood Duck - quite rare locally in the winter. Also present were Ringed-necked Ducks and Coot. We lunched overlooking the Niantic River and added Scaup, Goldeneye, Bufflehead, and Pied-billed Grebe to the list. At noon we placed a phone call to the groups working in the Mystic area to find out what birds were still needed for the overall list. The afternoon was spent along the shore and on repeated trips along certain productive roads. Excellent birds such as Loggerhead Shrike, Yellow-breasted Chat, and a Red-throated Loon were seen. Towards dark Towhees were calling and a Common Snipe flew across the road. The day totaled 65 species and 3,027 individuals - the best group list this area had ever produced on a Count.

That evening all the groups in the field met to compile the total list for the Count. Feeder reports coming in constantly by telephone helped make it a very successful year. Final results were 103 species and 17,926 individuals. We broke up at 10:00 P.M. and looked forward to catching up on a little sleep.



FIELD NOTES

OCTOBER 15 - NOVEMBER 15

Old Lyme, Niantic and Haddam: Both RUBY-CROWNED and GOLDEN-CROWNED KINGLETS were abundant during this period with over two dozen birds in one tree at Dolbia Hill in Haddam on Oct. 30th. Two SNOW GEESE were first seen at Bride Lake on Oct. 27th and the first HORNED GREBES of the year were on the Niantic River along with 12 GREATER SCAUP on Oct. 19th. A dark phased ROUGH-LEGGED HAWK was over Great Island in Lyme on Nov. 7th and a brilliant male BALTIMORE ORIOLE was seen in East Lyme on the 9th.

Waterford and New London: EVENING GROSBEAKS were the highlight of the period. The Science Center feeder has a daily flock of over 40 birds and others have been reported from Harkness Park, Mary Butler Dr., Quaker Hill, and Bate's Woods. Eleven PHEASANTS were seen in one yard along Shore Road on Oct. 19th. PINE SISKENS were noted at Magonk Point on the 29th where a YELLOW BREASTED CHAT and PURPLE SANDPIPERS were seen on Nov. 3rd. A late COMMON EGRET was at Harkness State Park on Oct. 29th; MARSH and PIGEON HAWKS were there on the 31st. A BARN SWALLOW and COMMON SNIPE were present at Harkness on Nov. 11th. HOODED MERGANSERS were at Golden Spur on Nov. 4th and the first FOX SPARROW was at Mitchells Woods on Oct. 26th. A RED-BREASTED NUTHATCH was at the Science Center feeder on Nov. 6th.

Groton, Mystic and Stonington: EVENING GROSBEAKS were reported from several locations from Oct. 27th on. Feeders on North Stonington, Stonington, Mystic, Noank and Groton were visited with a high of over 60 birds at Hidden Acres in Groton. PINE SISKENS fed on grass seeds from Oct. 18th on along

River Road in Mystic and a RED-BREASTED NUTHATCH came to feeders on River Road and the Peace Sanctuary on Nov. 6th. Two LINCOLN'S SPARROWS on Oct. 16th and two DICKCISSELS on the 25th were at Darl ing Hill Farm in Stonington. BUFFLEHEADS first arrived on the Mystic River on Oct. 20th, two male COMMON GOLDENEYES arrived on the 31st and COOT were on the River on Nov. 8th. Other arrival dates in the area included HORNED GREBE at Groton Long Point on Nov. 3rd, RUDDY DUCK and HOODED MERGANSERS in Baker's Cove also on the 3rd and VESPER and TREE SPARROWS on the 20th and 27th along River Road. Late dates include an OSPREY on the Mystic River on Oct. 22nd, a BARN SWALLOW at Esker Beach on Nov. 9th and a GOLDEN PLOVER at Groton Long Point on the 9th. A WOODCOCK was flushed in North Stonington on Oct. 31st and a CLAPPER RAIL crossed River Road on Nov. 3rd. Perhaps the biggest find of the period was a flock of 7 BLACK SKIMMERS that flew around Eastern Point on Nov. 3rd.

Rhode Island Shoreline: At Napatree Point on Oct. 27th, birders found HORNED LARKS, 7 BRANT and 2 OLDSQUAWS. SNOW BUNTINGS were found on Nov. 11th. The first HOODED MERGANSERS were seen at Charlston on Oct. 28th. Four GANNETS were in Narragansett Bay on Oct. 30th and an IPSWICH SPARROW was at Moonstone Beach on Nov. 9th.

Contributors to this column were: Mr. and Mrs. Kenneth Bates, Grace Bissell, Larry Brooks, Robert Bulmer, Bob and Mary Jean Dewire, John J. Gardner, Trudy Gardner, Helen Gilman, Richard Goodwin, Virginia Hatchell, Barbara Kashanski, Larry Keating, Sam and Katy Knox, Robert Kunz, Mary Laffargue, Rose Levitt, Ann and Bill Morgan, Betty Noyes, Paul Spitzer, Jerry Theiler, Mary Waldo, Mike Walker, John Williams and Lyle Williams.

ACTIVITIES FOR DECEMBER

Dec. 7 ..... All Day. An adult field trip to Cape Ann, Mass. Phone the Center for details.

Dec. 8 ..... 3:00 P. M. Showing of Walt Disney's feature film "The Living Desert" at the Essex Town Hall. Admission charge.

Dec. 14 .... 8:00 A.M. A field trip through the Old Lyme - Saybrook area. Meet at parking lot of Terra Mar Inn in Old Saybrook.

Dec. 14 ....10:00 A.M. Junior Workshop for Grades 3, 4 and 5. Making a "Christmas Tree for the Birds" Limit 10 children. Registration in advance. Fee 50¢

Dec. 15 .... 2:00 P.M. FAMILY FILM FESTIVAL held in auditorium of Lyman Allyn Museum. Film will be Walt Disney's "Vanishing Prairie." Members Only.

Dec. 21 .... 1:00 to 5:00 Nature's Gems. A display at the Science Center. (See ROCKHOUNDS article for details.)

Dec. 27 .... New London Annual Christmas Count.

Dec. 30 .... Lyme-Saybrook Annual Christmas Count.

THE THAMES SCIENCE CENTER

Your Family Nature Center--Serving Southeastern Connecticut

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The staff of the
Science Center extends
to its members best wishes
for a Happy Holiday Season.